

NEW LEPIDOPTERA.

By THE HON. WALTER ROTHSCILD.

1. *Papilio aristolochiae lombockensis* subsp. nov.

♂ ♀. Like *P. aristolochiae antiphus*, but differs as follows: the white streaks on the underside of the forewing are much shorter and narrower, the black border of the wing being almost twice as broad as in *antiphus* from Sumatra; the red submarginal spots on the hindwing below are mostly larger and less linear, the middle ones often overpowered with black scales; the tail is broader at the base and at the apex, being sometimes as broad as in *aristolochiae kotzebueus*.

Hab. Sawela, Lomбок Island, 1000—2000 feet, June 1896 (W. Doherty).

2. *Papilio memnon clathratus* subsp. nov.

Papilio memnon merapu, Nov. Zool. 1895. p. 315 (c) (*ex p.*).

I am now in possession of a Sumba specimen of *merapu*, and find that W. Doherty was right when he told me during his last visit here that the Sambawa and Sumba *memnon* are not identical, but belong to two subspecies. Therefore I have to give a name to the Sambawa form. Besides the inferior size, *clathratus* is distinguished from *merapu* by the marginal area of the underside of the hindwing being less ochreous, mostly grey, and more extended on the disc, and by the grey rays of the upperside of the hindwing being, near the margin of the wing, broader. The *female* of *merapu* is unknown; that of *clathratus* I have described in Nov. Zool. 1895. p. 316.

Hab. Sambawa (W. Doherty, September 1891).

3. *Papilio albinus thomsoni* ab. *mordingtoni* ab. nov.

This most singular specimen reminds one strongly in its style of aberration of *Papilio nubilus* Staud. and *P. walkeri* Jans., and I should have gladly given it equal specific rank with these two forms, but it was sent together with a great number of *P. albinus thomsoni* which show so much variation that I can clearly see that this specimen can be made out as an extreme sport.

Forewing: black-brown, with a few white scales between cell and apex.

Hindwing: black-brown; four white patches on disc, one in apex of cell extending half-way to base and rather ill-defined, the second between veins 6 and 7, the third almost obliterated between 2 and 3, and the fourth triangular before vein 7. One oblong red patch between abdominal margin and vein 2 near anal angle; another more indistinct, 11 mm. long, between veins 2 and 3.

Underside as above, but hindwing without white patches; the two red patches near anal angle larger and much more distinct. Both above and below these two spots are dusted with blue scales.

The two first of the series of red submarginal spots of *albinus* are present, although altered in shape.

Hab. Little Kei Island, one ♀ (Capt. H. Cayley Webster).

Although as a rule I do not give a personal name to an *aberration*, I do so in this case at the request of the collector.

4. *Papilio sarpedon dodingensis* subsp. nov.

Papilio sarpedon anthedon, Nov. Zool. 1895. p. 444 (*b*) (*ex p.*).

♂ ♀. I have recently received some more specimens of *sarpedon* from the Moluccas, and find now that these islands are inhabited by two forms, one occurring on the southern group of islands (Amboina, Ceram, and the adjacent islets), the other on the northern islands (Halmaheira and Batjan). The characters in pattern which distinguish the northern form from the southern one are in so far highly interesting as we meet with them again in the Celebensian subspecies; *sarpedon dodingensis* from the Northern Moluccas, therefore, being in pattern more closely allied to *sarpedon milon* and *sarpedon monticolus* (!) from Celebes than to *sarpedon anthedon* from Amboina and Ceram.

P. sarpedon dodingensis differs from *sarpedon anthedon* as follows: band on forewing narrower, having behind a breadth of from 5 to 6 mm. instead of 8 mm.; the band on hindwing also about 2 mm. narrower, which is especially obvious at costal margin and in cell. First submarginal spots on hindwing less arched, almost straight. On underside of hindwing there is, as in *milon* and *monticolus* (!), a red spot before cell between veins 6 and 7, which is absent from all the other subspecies of *sarpedon*.

The bands are in the ♂, not in the ♀, more blue than in *anthedon*.

Hab. Halmaheira (*type*); Batjan.

The differences in the genital armature of *dodingensis* and *anthedon* will be explained in another place.

5. *Papilio sarpedon timorensis* subsp. nov.

P. sarpedon parsedon, Nov. Zool. 1895. p. 442 (*d*) (*ex p.*).

♂. I am now in possession of Australian specimens of *sarpedon* which agree with the type of *P. sarpedon parsedon*, *Tr. Ent. Soc. Lond.* 1872. p. 99. t. 5. f. 1, and which show that I was wrong in applying this name to the Timor insect; *parsedon* is nothing else but a small specimen of *choredon* killed shortly after the emergence from the pupae.

For the Timor subspecies I propose the name of *timorensis*. It has the bluish green colour of *choredon*; the middle band of the forewing is posteriorly not so broad as in *choredon*, while the four anterior spots are larger; especially the third spot is comparatively very large, having a diameter of 4 mm. This spot is placed closer to the apex of the cell than in *choredon* and *sarpedon sarpedon*. The hindwing is longer than in *choredon*, and the tooth even more prominent than in *teredon*, Nov. Zool. 1895. p. 442 (*c*): the band has at the costa a breadth of 7 mm. On the underside the red costal mark of the hindwing stands closer to the median band than in *choredon*; the black line separating it from the band is thinner than the red mark.

A Wetter specimen differs from the Timor form in having the median band of both wings broader. On the left hindwing this individual has a small blue-green discal spot near the apex of the cell between veins 4 and 5, which reminds one of the discal series of spots present in *P. agamemnon* and allies.

Hab. Timor (*type*); Wetter.

The male genital armature will be figured and the differences between it and that of *choredon* pointed out by Dr. K. Jordan in another place.

6. *Papilio sarpedon jugans* subsp. nov.

♂. A small form with green, not blue-green, markings. The band of the wings shaped as in *timorensis*; third spot of the same size and position as in that form. Red costal line of underside of hindwing narrower than the black line which separates it from the median band. Hindwing shaped as in Indian *sarpedon*; therefore much shorter than in *timorensis* and *adonarensis*.

Two of my four specimens have an additional green spot between the second spot of the median band of the forewing and the costa.

The genital armature resembles more that of *timorensis* than that of *sarpedon* and *adonarensis*.

Hab. Waingapoeng, Sumba.

This form combines to a certain extent the characters of *sarpedon sarpedon* and *sarpedon timorensis*.

7. *Papilio sarpedon adonarensis* subsp. nov.

Papilio sarpedon parsedon, l.c. p. 442 (d) (ex p.).

♂. The median band of the forewing is nearly shaped and coloured as in *sarpedon sarpedon*. The first spot is relatively large, its diameter being $2\frac{1}{2}$ mm. The following four spots increase gradually in size; their respective diameters are 3 mm., $3\frac{1}{2}$ mm., 4 mm., $4\frac{1}{2}$ mm., and 5 mm.; the diameters of the remaining four spots are $6\frac{3}{4}$ mm., 8 mm., $7\frac{1}{2}$ mm., and $7\frac{1}{2}$ mm. The band of the hindwing has at the costa a breadth of 8 mm., and at the median vein of $3\frac{1}{3}$ mm. Below, the red and black costal lines of the hindwing are both half as broad again as in *timorensis*. Shape of hindwing nearly as in *timorensis*, but the tooth less pointed.

Distinguished from *sarpedon timorensis* and *sarpedon choredon* by the colour of the median band, by the larger anterior spots of the forewing; from *timorensis*, moreover, by the position of the third spot; and from both by the male genital armature (as will be explained later on by my assistant, Dr. K. Jordan). From *sarpedon sarpedon* it is distinguished especially by the much longer hindwings and their shorter band.

Four specimens from Tambora, Sambawa, collected by W. Doherty, at an elevation of 2000—4000 feet, in May 1896, stand exactly intermediate between *adonarensis* and Indian *sarpedon* in the shape of the hindwing.

Hab. Adonara (*type*) and Sambawa.

8. *Papilio phorcas ansorgei* subsp. nov.

♂. Differs from *P. phorcas* F. as follows: the spots of the forewing situate along the stem of veins 7 and 8 are smaller, and are separated from the spot at the base of the fork by a black interspace; the spot of the median band before vein 5 is absent, and the following spots are shorter than in *phorcas*. The submarginal band of spots of the hindwing stands farther from the margin, being at vein 5 situate midway between margin and cell. The tails are broader than in *phorcas*.

Hab. Man, Uganda Protectorate, May 18th, 1895, two ♂♂ (Dr. W. J. Ansorge). Named in honour of the collector.

9. *Papilio phorcas congoanus* subsp. nov.

♂. Considerably larger than *phorcas*, the forewing having a length of 60 mm. The markings of the upperside are in all three individuals yellowish green; the median band is anteriorly broader, the spot between veins 4 and 5 measuring 7 mm. in length, that before it $5\frac{1}{2}$ mm., while the spot behind the stem of veins 7 and 8 has a length of 9 mm. The yellowish green basal area of the hindwing does not extend quite so far to the apex of the cell as in *phorcas*.

Hab. Lukolele, Upper Cougo, two ♂♂ (*type*); and French Congo, one ♂.

Whether the peculiar colour of the median band of the upperside is due to damp I do not know; but, as the three specimens have been caught at two different places by different collectors, the colour may be natural. The chief difference between *congoanus* and *phorcas* is the length of the forewing and the form of the median band.

10. *Appias montanus* sp. nov.

♂. Allied to *A. phoebe* Feld. The black apical region of the upperside of the forewing is more extended; the black spot at the apex of the cell is larger; the hindwings are creamy white, with a narrow sulphur-yellow border and a few black scales at the anterior nervules. On the underside the differences are very much pronounced: the apex of the forewing and the whole hindwing are yellow, not white; the hindwing has a black dot upon the second discocellular veinlet, and some very faint traces of black patches in the outer half.

Hab. Mount Calaan, Negros, Philippine Islands, 6000—7000 feet, February 1896 (J. Whitehead).

Mr. J. Whitehead sent a good series of this remarkable insect, which was found only at high elevations.

11. *Euryglottis dognini* sp. nov.

Near to *E. aper* (Wlk.) and *E. davidianus* Dogn., but differs as follows:—

Forewing: the subbasal transverse yellow bands are absent; the broad discal transverse band is similar to that in *E. aper*, but is almost obliterated.

Hindwing: has the white band as in *aper*, but much more distinct.

Underside: without bands.

Abdomen with four longitudinal rows of white spots; the lateral orange patches of *aper* are replaced by large white ones.

Hab. Loja, Ecuador (*type*), and Columbia.

12. *Herpa meeki* Rothsch. sp. nov.

♀. *Forewing*: two-thirds of wing creamy white, outer edge of this white area rounded; outer third black, with three white subapical spots; base and veins in black area bright metallic blue, the blue extending one-third along costa from base, and also costa from white area for 6 mm. into black area is blue; tip of fringe white.

Hindwing: white, bordered broadly with black; base and submarginal border bright blue, the latter colour running along some of the veins for a short way into black area.

Underside: as above, but hindwing with a white spot at apex.

The whole of body blue, except last six segments of abdomen, which are clay-brown.

Expanse: forewing AM 27 mm.; EM 17 mm.; PM 20 mm.

„ hindwing „ 20 „ ; „ 17 „ ; „ 12 „

Woodlark Island (*type*); and Fergusson Island, D'Entrecasteaux group, December 1894 (A. S. Meek *leg.*).

This species has the general appearance of a true *Chaleosia*, but the venation agrees best with *Herpa*.

The Fergusson single ♀, which is in bad condition, has the black border of hindwing somewhat broader than the four Woodlark ♀♀.

13. *Oenetus marginatus* sp. nov.

♂. *Forewing*: bright yellowish grass-green, broadly reticulated with darker green; just beyond the centre is a transverse band of seven lunulated silver spots, and the costa is heavily spotted with brown; exterior margin with brown spots.

Hindwing: salmon-red, with green border starting from middle of abdominal margin, widest at anal angle, and running gradually narrower to the costa.

Underside: forewing salmon-red, with margins spotted green; costa brown, spotted with green. Hindwing nearly shaped as in *ramsayi* ♂, but shorter, broader, and at the apex more acutely produced; green, slightly washed with red; abdominal third red; costa green and brown-spotted.

Head and front of thorax dark green; mesothorax green, washed with grey, and with two brown dots; rest of thorax and anterior half of abdomen salmon-red; end half of abdomen green.

♀. *Forewing*: golden green to greenish gold, with very heavy dark green reticulations, forming often complete transverse lines; a broad central band extends from inner margin, almost reaching to costa, and is composed of round brown spots varying in number and distinctness.

Hindwing: darker red than in *male*; outer border greenish yellow.

Underside: forewing red, shaded with yellow towards outer margin. Hindwing yellow, washed with red, more so in cell. Body as in *male*.

Expanse: ♂, forewing: length, 37 mm. ♀. 60 mm.

„ „ „ breadth, 18 „ „ 22 „

„ „ hindwing: length, 29 „ „ 38 „

„ „ „ breadth, 20 „ „ 22 „

Hab. Kiriwini, Trobriand Islands, March and April 1895 (A. S. Meek *leg.*).

Described from a good series.

14. *Phalaenoides centralis* sp. nov.

♀. *Forewing*: burnt umber-brown, densely powdered with isabelle scales; the usual metallic spots in cell and a broad metallic band along vein 1b to inner angle; three creamy white spots; one 3 mm. from base and triangular; second almost triangular beyond middle of cell, separated from the first by a long brown patch; third spot large and ovate, situated outside cell, its size 6 by 3 mm.

Hindwing: uniform burnt umber, with white fringe; in centre of wing a round creamy patch, 3 mm. in diameter.

Underside: ground-colour burnt umber, shading off into creamy buff towards margins; markings as above, but hindwing with a small additional creamy patch near base.

Head and three streaks on thorax cream-colour; rest of thorax burnt umber. Abdomen above smoky black, last three segments orange. Legs and underside of abdomen pale yellow; fore tibiae and fore tarsi spotted brown.

Expanse: forewing AM 24 mm.; EM 13 mm.; PM 17 mm.

" hindwing " 17 " ; " 13 " ; " 11 "

Hab. Rockhampton, Queensland (coll. Barnard).

15. *Milionia dysphanoides* sp. nov.

♂. *Forewing*: shaped as in *M. elegans*, Nov. Zool. 1895. t. vii. f. 1; purplish black, but without any metallic sheen; a large oblique greyish white patch is situated in the basal fourth, and extends from inner margin to median nervure, and is broadest in front of vein 1*b*; at apical half of cell there is an oblique greyish white band extending from the costa to submedian fold, and split up into three spots by the nervures; another bandlike spot near inner angle between veins 1 and 3; a subapical band consists of three spots, two close together near costa, and one between veins 3 and 4, near outer margin.

Hindwing: deeper black, with the following cadmium-yellow markings: at basal third a band extends from the abdominal margin across the wing to near apex of cell, stopping at middle fold of cell; then a second narrower from abdominal margin close to anal angle to vein 3; lastly two large spots between veins 3 and 6, nearer to the margin.

Underside: markings more extended, and on underwing the two subapical spots coalesce with second band.

Abdomen cadmium-yellow, except first segment, which, like rest of body, is black, as are four small round spots on each side of abdomen.

♀ only differs from *male* in the broader wings, the first band of hindwing above being indistinct; below in not having the second band joined to confluent subapical spots, and in having the middle segments of abdomen black.

Expanse slightly smaller than in *M. elegans* Rothsch.

Hab. Fergusson Island, D'Entrecasteaux group.

Three ♂♂, one ♀, collected by A. S. Meek, September to December 1894.

16. *Milionia flaviventris* sp. nov.

♂. *Forewing*: black, but most of the wing occupied by orange-red, leaving a broad black band along inner margin from base to near inner angle, where a small black patch between veins 1*b* and 2 is joined to it at right angles: the band is 3 mm. broad in centre, and tapers off to each end; the apical region is also black, 10 mm. broad at costal margin, and gradually narrowing to vein 2; a black patch 7 mm. long and 3½ wide reaches obliquely from middle of costal margin to a little beyond the cell; costal margin narrowly black.

Hindwing: entirely black.

Underside: as above; retinaculum black.

Thorax yellowish brown; abdomen yellow; head, underside of thorax, and legs sooty black.

Expanse: forewing AM 28 mm.; EM 17 mm.; PM 20 mm.

" hindwing " 20 " ; " 15 " ; " 14 "

Hab. British New Guinea, between Mounts Alexander and Nishat, two ♂♂, January 1896 (A. S. Anthony).

17. *Milionia mediofasciata* sp. nov.

♀. *Forewing*: black, crossed by a broad transverse discal white band 6 mm. wide at costa and hindmargin and 9 mm. in centre; inner edge of band straight and at right angles to inner margin of wing; outer edge convex.

The second specimen has the white band somewhat narrower, especially from median vein to costa.

Hindwing: black, with broad oblique band of Chinese orange, reaching from abdominal margin close to anal angle to beyond vein 7; its width is 4 mm. at ends and 8 in centre; inner edge of band slightly undulated, and outer edge convex.

Underside: as above, but paler.

Body above black, below sooty brown.

Expanse: forewing AM 38 mm.; EM 21 mm.; PM 23 mm.

„ hindwing „ 26 „ ; „ 19 „ ; „ 16 „

Hab. British New Guinea, between Mounts Alexander and Nisbet, two ♀♀, January 1896 (A. S. Anthony).

18. *Milionia rawakensis woodlarkiana* subsp. nov.

Differs from type in the extreme narrowness of the marginal band to hindwings, which has a uniform breadth of 3 mm.

I have a specimen of *rawakensis* from the Sattelberg, near Finschhafen, German New Guinea, which is intermediate.

Hab. Woodlark Island, collected by A. S. Meek.
